

ABSTRACT

A printed circuit board containing internal devices for optical generation, transmission and reception in the X and Y dimension of the plane and electrical connection of the plane. The printed circuit board may contain planes that are capacitively coupled upon which the optical devices may be formed for the reduction of electrical noise (EMI) and the removal of heat from the area of the optical devices. This printed circuit board is intended to internally transmit and receive data at faster rates than can be achieved by electrical transmission across the same distances.